

AMENDMENTS TO THE CLAIMS

Please amend the claims as shown below. A complete listing of the claims, including their current status, is set forth below.

1-68. (Cancelled)

69. (Currently amended) A method of screening for a compound that increases cAMP levels in peripheral blood leukocytes, comprising:

(a) contacting a candidate compound with a G protein-coupled receptor (GPCR) that is present on the surface of a recombinant host cell or isolated membrane thereof, wherein said GPCR comprises an amino acid sequence that is at least 80% identical to the amino acid sequence of SEQ ID NO:82; and

(b) determining that if said candidate compound is an agonist of said GPCR; and wherein an agonist of said GPCR is capable of increasing cAMP levels in peripheral blood leukocytes,

(c) determining if said agonist increases cAMP levels in a peripheral blood leukocyte;

70. (Previously presented) The method of claim 69, wherein said determining step (b) comprises: determining if said candidate compound is a partial agonist of said GPCR.

71. (Previously presented) The method of claim 69, wherein said determining step (b) and/or said determining step (c) comprises detecting cAMP.

72. (Currently amended) The method of claim 71, wherein said detecting cAMP employs ELISA using an anti-CAMP anti-cAMP antibody.

73. (Previously presented) The method of claim 71, wherein the recombinant host cell comprises a reporter system comprising multiple cAMP responsive elements operably linked to a reporter gene.

74. (Previously presented) The method of claim 71, wherein said detecting cAMP comprises detecting an increase in intracellular cAMP accumulation.

75. (Previously presented) The method of claim 69, wherein said determining step (b) comprises using [35S]GTP γ S to monitor G protein coupling to a membrane comprising said GPCR.

76. (Currently amended) The method of claim 69, wherein said GPCR comprises an amino acid sequence that is at least 90% identical to the amino acid sequence of SEQ ID NO:82 determining step (e) comprises:

detecting a level of apoptosis produced by increasing cAMP levels in a peripheral blood leukocyte.

77. (Previously presented) The method of claim 69, wherein said GPCR comprises an amino acid sequence that is at least 95% identical to the amino acid sequence of SEQ ID NO:82.

78. (Previously presented) The method of claim 69, wherein said GPCR comprises an amino acid sequence that is at least 99% identical to the amino acid sequence of SEQ ID NO:82.

79. (Previously presented) The method of claim 69, wherein the GPCR comprises one or more of the following amino acid substitutions: P43A, K97N or I130F, relative to SEQ ID NO:82.

80. (Previously presented) The method of claim 69, wherein said GPCR is constitutively active.

81. (Previously presented) The method of claim 69, wherein the GPCR comprises the following amino acid substitution: I225K, relative to SEQ ID NO:82.

82. (Previously presented) The method of claim 69, wherein the method further comprises formulating said agonist as a pharmaceutical.

83. (Previously presented) The method of claim 69, wherein the GPCR forms part of a fusion protein with a G protein.
84. (Previously presented) The method of claim 69, wherein the host cell is a mammalian host cell.
85. (Previously presented) The method of claim 69, wherein the host cell is a yeast host cell.
86. (Currently amended) The method of claim ~~88~~ 69, wherein the peripheral blood leukocyte is a human peripheral blood leukocyte.
87. (Previously presented) The method of claim 69, wherein the recombinant host cell comprises an expression vector which comprises a nucleic acid encoding said GPCR.
88. (New) The method of claim 69, wherein said method further comprises determining whether said agonist increases cAMP levels in a peripheral blood leukocyte.